

## **Amendments to the Claims:**

This listing of claims will replace all prior versions and listing of claims in the application:

### **Listing of Claims:**

- Suff B1*
1. (Original) System for controlling a fueling governor for an internal combustion engine, the system comprising:  
a vehicle speed sensor producing a vehicle speed signal indicative of road speed of a vehicle carrying an internal combustion engine;  
a fuel system responsive to a fueling signal to supply fuel to said engine; and  
a control computer including a fueling governor producing said fueling signal as a function of a throttle command and a measured engine speed value, said governor defining an engine speed difference between a first value of said fueling signal corresponding to a no-load fueling condition and a second value of said fueling signal corresponding to a full-load fueling condition for any constant throttle command value, said control computer modifying said engine speed difference as a continual function of said vehicle speed signal.
2. (Original) The system of claim 1 wherein said control computer is operable to increase said engine speed difference as said road speed decreases and to decrease said engine speed difference as said road speed increases.

3. (Original) The system of claim 1 further including means for determining a gear ratio of a transmission coupled to said engine and producing a gear ratio value corresponding thereto;

wherein said control computer is further operable to modify said engine speed difference as a function of said gear ratio signal.

4. (Original) The system of claim 1 further including means for determining one of a mass and a weight of said vehicle and producing a corresponding mass or weight value;

and wherein said control computer is operable to modify said engine speed difference as a function of said mass or weight value.

5. (Original) The system of claim 1 wherein said control computer is operable to determine a vehicle acceleration value as a function of said vehicle speed signal;

and wherein said control computer is operable to modify said engine speed difference as a function of said vehicle acceleration value.

6. (Original) The system of claim 1 further including means for determining a condition of a road traveled by said vehicle and producing a road condition signal corresponding thereto;

wherein said control computer is operable to modify said engine speed difference as a function of said road condition signal.

*a/*

7. (Original) The system of claim 6 wherein said condition of a road traveled by said vehicle corresponds to a grade of said road, said road condition signal corresponding to a road grade signal.

8. (Original) The system of claim 6 wherein said condition of a road traveled by said vehicle corresponds to a surface condition of said road, said road condition signal corresponding to a road surface condition signal.

9. (Original) The system of claim 1 further including an engine speed sensor producing an engine speed signal indicative of a rotational speed of said engine, said control computer processing said engine speed signal to determine said measured engine speed value.

10. (Original) The system of claim 9 further including means for producing said throttle command, said throttle command corresponding to a fueling request.

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Canceled)

36. (Original) System for controlling a fueling governor for an internal combustion engine, the system comprising:

a vehicle speed sensor producing a vehicle speed signal indicative of road speed of a vehicle carrying an internal combustion engine;

a fuel system responsive to a fueling signal to supply fuel to said engine; and  
a control computer including a fueling governor producing said fueling signal as a  
function of a throttle command and a measured engine speed value, said governor  
having at least one gain value associated therewith defining a responsiveness of said  
governor to changes in said throttle command to effectuate corresponding changes in  
said measured engine speed value via control of said fueling signal, said control  
computer modifying said at least one gain value as a continual function of said vehicle  
speed signal.

37. (Original) The system of claim 36 wherein said control computer is operable  
to modify said at least one gain value to increase said responsiveness of said governor  
as said road speed increases and to modify said at least one gain value to decrease  
said responsiveness of said governor as said road speed decreases.

38. (Original) The system of claim 36 further including means for determining a  
gear ratio of a transmission coupled to said engine and producing a gear ratio value  
corresponding thereto;

wherein said control computer is further operable to modify said at least one gain  
value as a function of said gear ratio signal.

39. (Original) The system of claim 36 further including means for determining  
one of a mass and a weight of said vehicle and producing a corresponding mass or  
weight value;

and wherein said control computer is operable to modify said at least one gain value as a function of said mass or weight value.

40. (Original) The system of claim 36 wherein said control computer is operable to determine a vehicle acceleration value as a function of said vehicle speed signal; and wherein said control computer is operable to modify said at least one gain value as a function of said vehicle acceleration value.

41. (Original) The system of claim 36 further including means for determining a condition of a road traveled by said vehicle and producing a road condition signal corresponding thereto;

wherein said control computer is operable to modify said at least one gain value as a function of said road condition signal.

42. (Original) The system of claim 41 wherein said condition of a road traveled by said vehicle corresponds to a grade of said road, said road condition signal corresponding to a road grade signal.

43. (Original) The system of claim 41 wherein said condition of a road traveled by said vehicle corresponds to a surface condition of said road, said road condition signal corresponding to a road surface condition signal.

44. (Original) The system of claim 36 further including an engine speed sensor producing an engine speed signal indicative of a rotational speed of said engine, said control computer processing said engine speed signal to determine said measured engine speed value.

45. (Original) The system of claim 44 further including means for producing said throttle command, said throttle command corresponding to a fueling request.

46. (Canceled)

47. (Canceled)

48. (Canceled)

49. (Canceled)

50. (Canceled)

51. (Canceled)

52. (Canceled)

53. (Canceled)

54. (Canceled)

55. (Canceled)

56. (Canceled)

57. (Canceled)

58. (Canceled)

59. (Canceled)

60. (Canceled)

61. (Canceled)

62. (Canceled)

63. (Canceled)

64. (Canceled)

65. (Canceled)

66. (Canceled)

67. (Canceled)

68. (Canceled)

69. (Canceled)

70. (Canceled)

71. (Original) System for controlling a fueling governor for an internal combustion engine, the system comprising:

an engine speed sensor producing an engine speed signal indicative of rotational speed of an internal combustion engine;

means for producing a throttle command indicative of a fueling request;

means for determining an operating condition associated with one of said engine and a vehicle carrying said engine and producing an operating signal corresponding thereto, said operating condition independent of said rotational speed of said engine and said throttle command;

a fuel system responsive to a fueling signal to supply fuel to said engine; and

a control computer including a fueling governor producing said fueling signal as a function of said throttle command and said engine speed signal, said governor defining

an engine speed difference between a first value of said fueling signal corresponding to a no-load fueling condition and a second value of said fueling signal corresponding to a full-load fueling condition for any constant throttle command value, said governor having at least one gain value associated therewith defining a responsiveness of said governor to changes in said throttle command to effectuate corresponding changes in said rotational speed of said engine via control of said fueling signal, said control computer modifying said engine speed difference and said at least one gain value as a function of said operating condition signal.